

# PYLE<sup>®</sup>

## HYDRA

### PLMR440PA

### Marine Public Address System Controller



# OWNER'S MANUAL

Congratulations on your purchase of a **PYLE** PLMR440PA Marine Public Address System Controller.

It has been designed, engineered and manufactured to bring you the highest level of performance and quality, and will afford you years of listening pleasure.

Thank you for making a **PYLE** your choice for marine audio entertainment!

## **PLMR440PA**

### **4-Channel Marine Power Amplifier/Public Address System**

- Maximum Power 1200 Watts
- RMS Power 150 Watts X 4 @ 4 Ohms
- Power and Protection LEDs
- Line and Speaker Level Inputs
- Bridgeable • Trimode Operation
- Variable Gain Controls
- Variable Low Pass Crossovers • Fixed High Pass Crossovers
- 0-+18dB Variable Bass Boost
- Input Voltage Sensitivity Selectors
- PCB with Conformal Coating
- Waterproof, Hardwired Input/Output and Speaker Cables
- Balanced Microphone Input
- Remote Subwoofer Control
- Signal-to-Noise Ratio: Better Than 102 dB
- Dimensions (W x D x H): 12-3/4" x 7-3/8" x 2-1/4" (324 x 187 x 57 mm)

## **Introduction**

An important member of the **PYLE** marine MOSFET amplifier series, we are pleased to introduce the unique PLMR440PA, a powerful amplifier with public address capabilities.

This **PYLE** marine models features both high pass and low pass crossovers. For further flexibility in the use of a subwoofer, a variable bass boost control has been included. You can control the subwoofer level with the remote level control module.

**PYLE** marine understands that amplifiers are placed in many different kinds of installations, so we have also included an input sensitivity control to help you integrate the amp into your system regardless of the nature of your input source.

A custom microphone is included. Pressing the button on the microphone will mute the audio and allow you to be heard easily by others on your boat.

**PYLE** marine amplifiers are constructed using a special corrosion resistant coating on the printed circuit board to prevent damage from the high humidity of the marine environment.

In order to prevent the intrusion of water into the amplifier enclosure, we have provided the connections at the end of waterproof wires/cables, and tightly grommeted the wires as they pass through the end panels.

An additional important, unique component is the rubber pad which seals all control openings.

### **What is included?**

When first unpacking your new amplified subwoofer, please check first that the package contains all of the items below. If something is missing, contact the store where you purchased the product.

- **Marine amplifier**
- **Custom microphone and mounting bracket**
- **High input cable with connector(s)**
- **Speaker output cable with connector(s)**
- **Remote level controller**
- **Four(4) mounting screws**

## **Installation precautions**

Before you drill or cut any holes, investigate your vessel's layout very carefully. Take special care when you work near the gas tank, fuel lines, hydraulic lines and electrical wiring.

Never operate the amplifier when it is unmounted. Attach all audio system components securely within the amplifier to prevent damage, especially in an accident.

Do not mount this amplifier so that wire connections are unprotected, in a pinched condition, in contact with any metal surfaces in your marine vessel, or likely to be damaged by nearby objects.

Before making or breaking power connections in your system, disconnect the marine vessel battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.

If you need to replace the power fuse, replace it only with a fuse identical to that supplied with the amplifier. Using a fuse of a different type or rating may result in damage to your audio system or your amplifier which is not covered by the manufacturer's warranty.

### **Don't misuse the level control**

Do not mistake the input level control for a volume control! It is designed ONLY to match the output level of your audio source to the input level of your amplifier.

Do not adjust this input level to maximum unless your input level requires it.

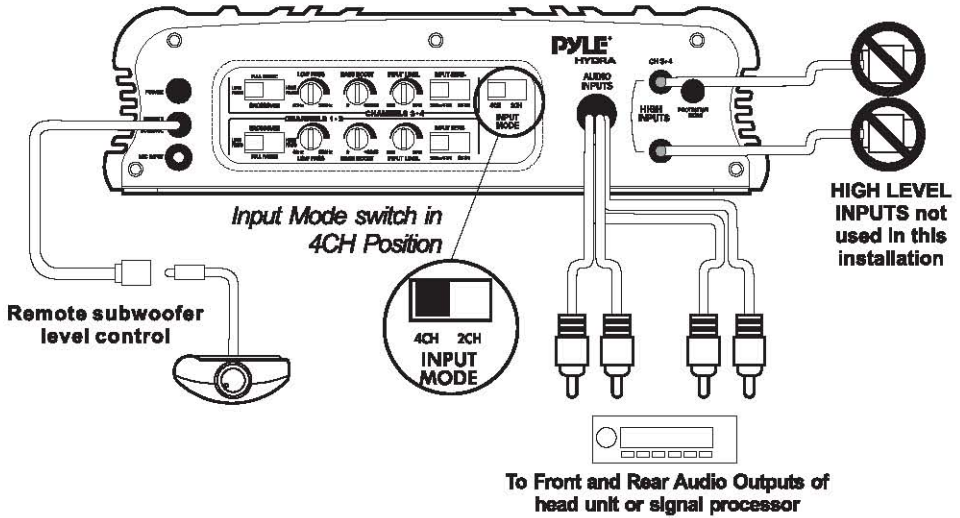
Ignoring these instructions will result in an input overload to the amplifier, and excessive audio distortion. It can also cause the protection circuit to engage.

## Low Level Input Wiring

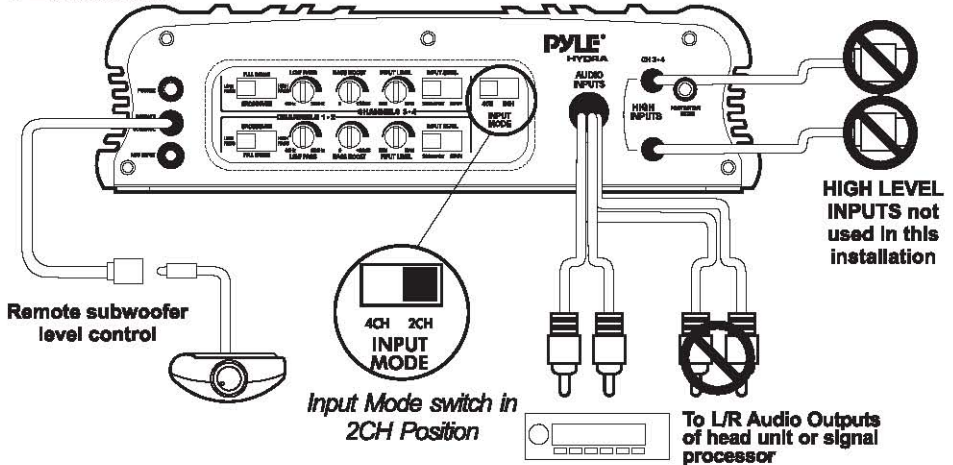
Low-level (RCA) input wiring is preferred for best audio performance. Always use a high-quality RCA cable for best audio performance.

**NOTE: Do not connect BOTH the high level and low level inputs from your receiver to your amplifier at the same time!**

### 4-Channel Amplifier with 4-Channel Audio Input Source PLMR440PA



### 4-Channel Amplifier with 2-Channel Audio Input Source PLMR440PA



## High Level Input Wiring

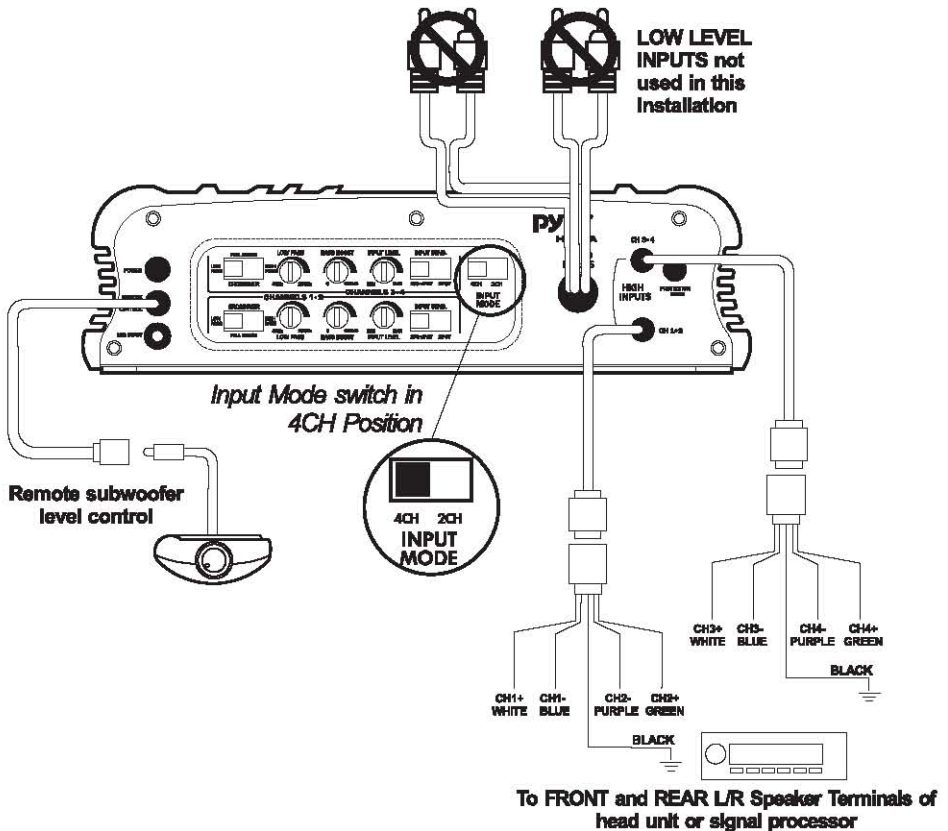
The high level input(s) should only be used when your head unit lacks RCA outputs. If the RCA outputs are not present, connect the speaker outputs from the receiver to the high level input connector of the amplifier. Be sure to observe polarity to avoid audio phase problems.

**NOTE: Do not connect BOTH the high level and low level inputs from your receiver to your amplifier at the same time!**

## 4-Channel Amplifier

### PLMR440PA

with 4-Channel Audio Input Source



## High Level Input Wiring

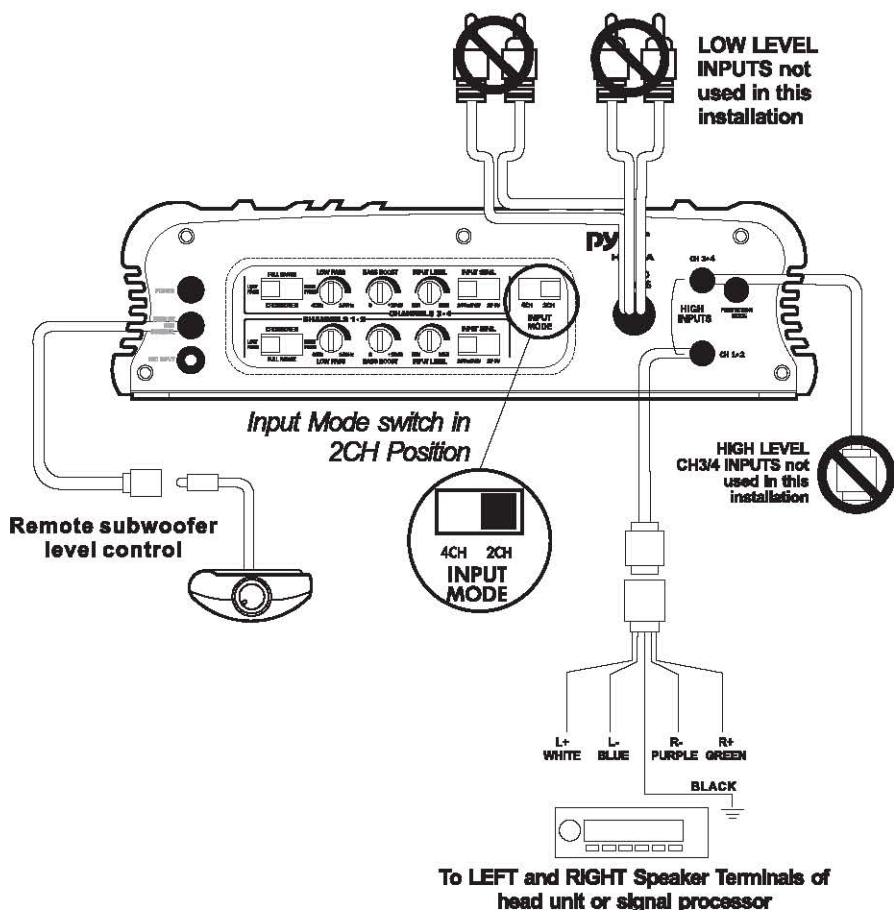
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**NOTE: Do not connect BOTH the high level and low level inputs from your receiver to your amplifier at the same time!**

## 4-Channel Amplifier

### PLMR440PA

with 2-Channel Audio Input Source

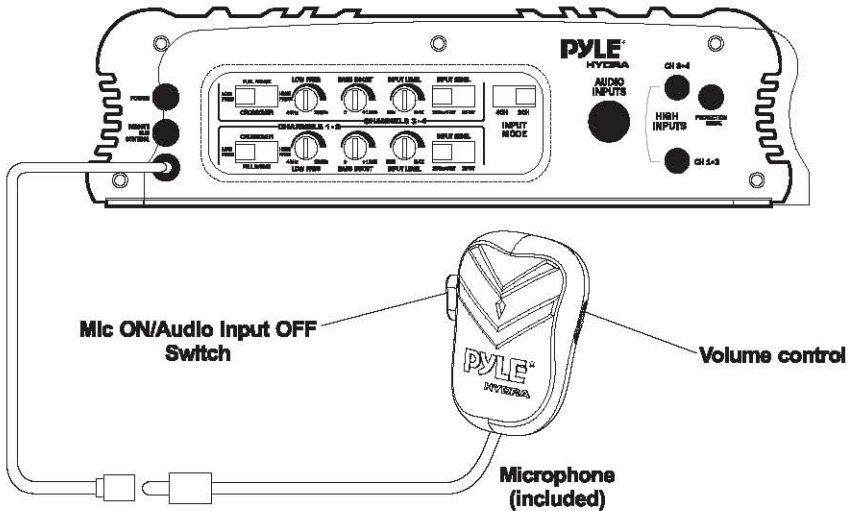


## Microphone Input Wiring

If you wish to use the public address feature in the PLMR440PA, all you need to do is to connect the custom microphone included with the amp.

When you press the button on the microphone, it automatically cuts off the input to Channels 1-4 from your audio source and presents the microphone signal to the amplifier.

You can use the microphone to supplement either 2CH or 4CH audio input from your signal source. In any case, when the mic switch is engaged, your audio input will be silenced until the switch is released.

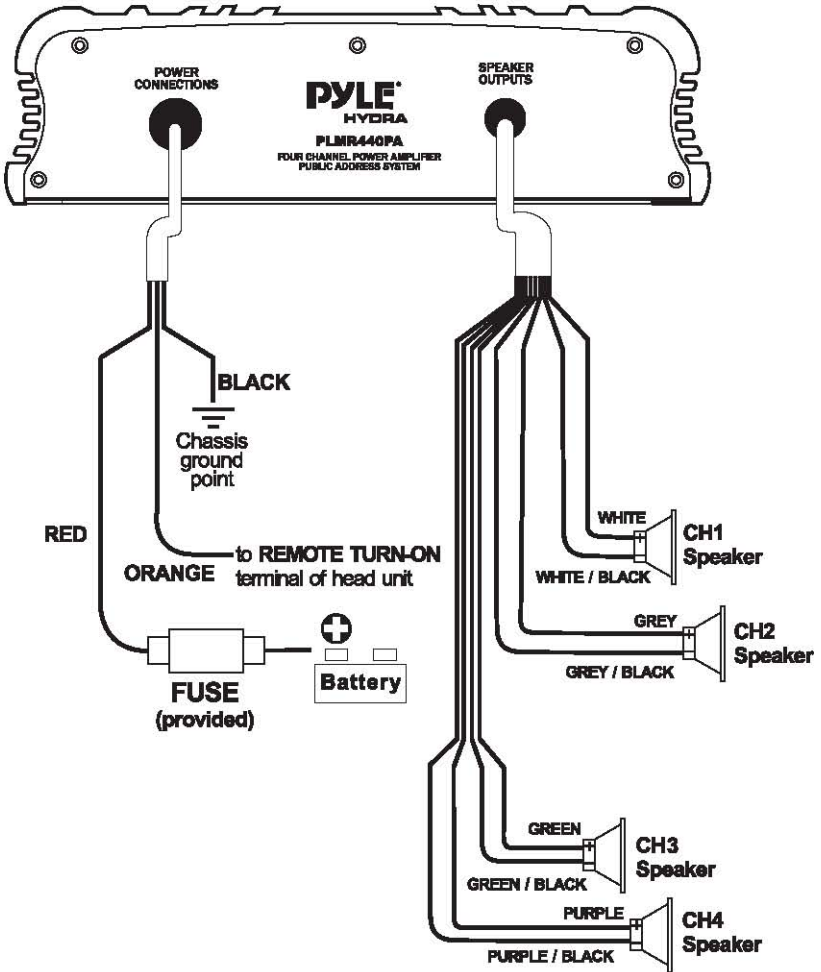




# Power and Speaker Wiring

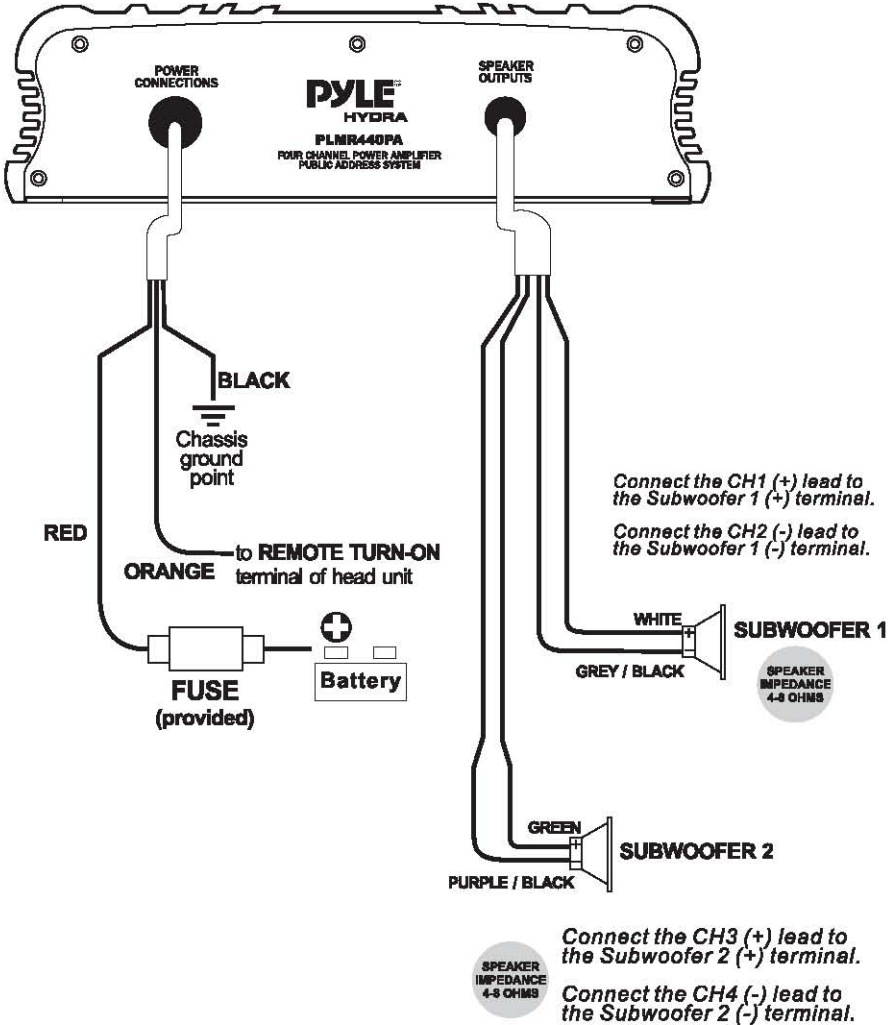
## 4 Channel Mode

### Four Channel Mode



# Power and Speaker Wiring Bridged Mode

## Bridged Mode



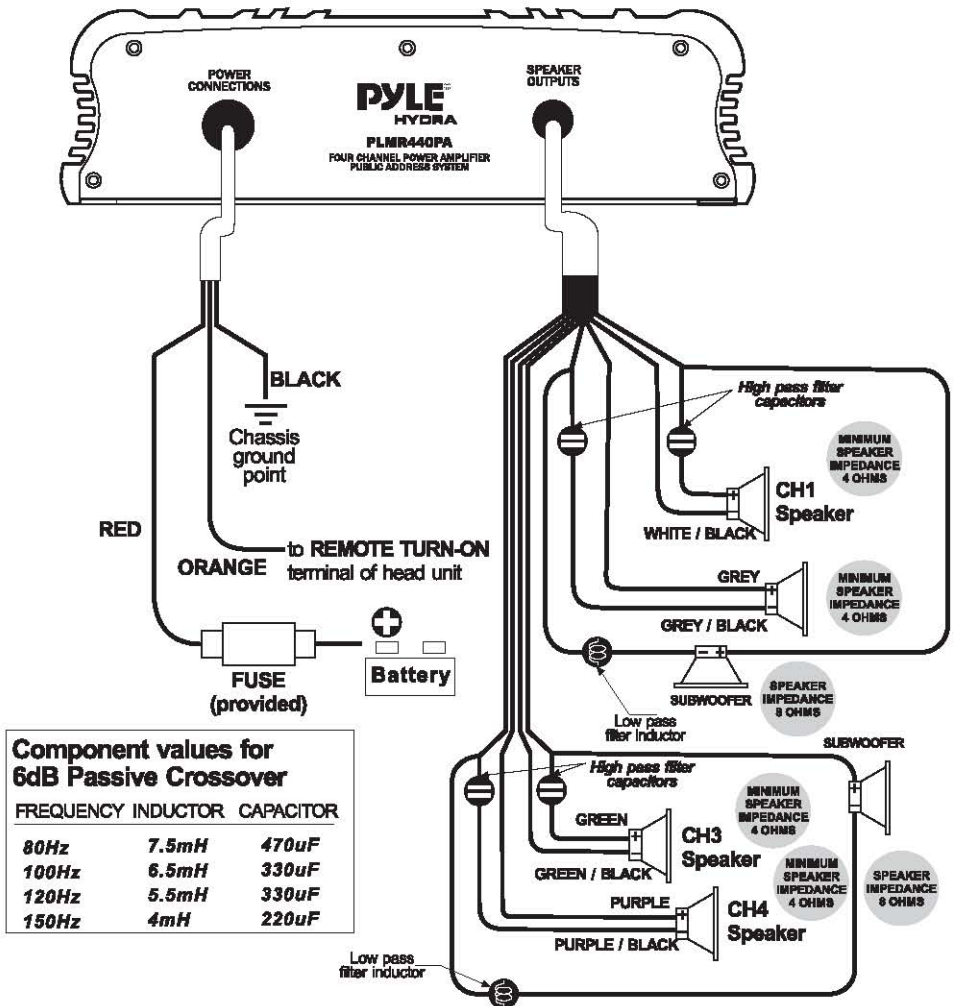
# Speaker Wiring

## Tri-Mode

Tri-mode operation allows you to connect this amplifier to a pair of main speakers plus a subwoofer on one pair of output channels. The main speakers will operate in STEREO while the subwoofer simultaneously operates in MONO.

To set the amplifier to run in this mode, **put the crossover switch in the FULL position**. Insert high pass filter capacitors and a low pass filter inductor into the wiring as shown below. Be sure to check the table at the bottom of this page to determine the correct capacitor and inductor values for the crossover frequency you wish to achieve.

### Tri-Mode



**Component values for 6dB Passive Crossover**

FREQUENCY	INDUCTOR	CAPACITOR
80Hz	7.5mH	470uF
100Hz	6.5mH	330uF
120Hz	5.5mH	330uF
150Hz	4mH	220uF

## **Troubleshooting**

Before removing your amplifier, refer to the list below and follow the suggested procedures. Always test the speakers and their wires first.

### **Amplifier will not power up.**

Check for good ground connection.

Check that remote DC terminal has at least 13.8v DC.

Check that there is battery power on the +terminal.

Check all fuses.

Check that Protection LED is not lit, If it is lit, shut off amplifier briefly and then repower it.

### **High hiss or engine noise (alternator whine) in speakers.**

Disconnect all RCA inputs to amplifier(s)-if hiss / noise disappears, then plug in the component driving the amplifier and unplug its inputs. If hiss / noise disappears, go on until the faulty / noisy component is found.

It is best to set the amplifier's input level as insensitive as possible. The best subjective S/N ratio is obtainable this way. Try to drive as high a signal level from the head unit as possible.

### **Protection led comes on when the AMPLIFIER is powered up.**

Check for shorts on speaker leads.

Check that the volume control on the head unit is turned down low.

Remove speaker leads, and reset the amplifier. If the Protection LED still comes on, then the amplifier is faulty.

### **Amplifier (S) gets very hot.**

Check that the minimum speaker impedance for that model is correct.

Check for speaker shorts.

Check that there is good airflow around the amplifier. In some applications, an external cooling fan may be required.

### **Distorted sound**

Check that the Level control(s) is set to match the signal level of the head unit.

Check that all crossover frequencies have been properly set.

Check for shorts on the speaker leads.

### **High squeal noise from speakers**

This is always caused by a poorly-grounded RCA patch cord.

**PYLE®**

[www.pyleaudio.com](http://www.pyleaudio.com)